

CLAIMS LISTING

1. (previously presented) Reinforced thermoplastic polyamide molding materials having simultaneously good surface quality, good flowability and good heat dimensional stability comprising a polyamide composition comprising:
85-92 wt.% of a semi-crystalline semi-aromatic (co)polyamide having a melting point of at least 240°C, formed by
 - (A₁) 50-80 mol% of units of terephthalic acid based on the whole amount of total acids,
 - (A₂) 20-50 mol% of units of isophthalic acid based on the whole amount of total acids,
the sum total of units of dicarboxylic acids being 100 mol%, and
 - (A₃) 100 mol% of units of at least one linear or branched aliphatic diamine having 4-25 carbon atoms,
the percentage molar amount of phthalic acids in said semi-crystalline semi-aromatic (co)polyamide being 100 mol% and the percentage molar amount of diamines being 100 mol%, and8-15 wt.% of amorphous (co)polyamides having a melting enthalpy of not more than 1 cal/g, formed by

- (B₁) 55-100 mol% of units of isophthalic acid based on the whole amount of total acids,
- (B₂) 0-45 mol% of units of terephthalic acid based on the whole amount of total acids,
- (B₃) 100 mol% of units of at least one linear or branched aliphatic diamine having 4-25 carbon atoms based on the whole amount of present diamines
- the percentage molar amount of phthalic acids in said semi-crystalline semi-aromatic (co)polyamide being 100 mol% and the percentage molar amount of diamines being 100 mol%,

and said molding material further comprises:

25-70 wt.% of a fibrous or particle filler or mixtures thereof

0-20 wt.% of a elastomer, and

up to 30 wt.% of usual additives and processing aid agents based on the total amount of said molding materials.

2. (previously presented) Polyamide molding materials according to claim 7 characterized in that said semi-crystalline semi-

aromatic (co)polyamide has a melting point of about 280-350°C.

3. (previously presented) Polyamide molding materials according to claim 7 comprising 30-60 wt.% of said fibrous or particle filler or mixtures thereof.

4. (canceled)

5. (previously presented) Polyamide molding materials according to claim 7 characterized in that said semi-crystalline semi-aromatic (co)polyamide comprises

- 60-80 mol% of terephthalic acid,
- 20-40 mol% of isophthalic acid,
- 100 mol% of hexamethylenediamine,

the percentage molar amount of phthalic acids being 100 % and the percentage molar amount of diamine being 100 %.

6. (previously presented) Polyamide molding materials according to claim 7 characterized in that said amorphous (co)polyamide consists of

- 60-80 mol% of isophthalic acid,
- 20-40 mol% of terephthalic acid,
- 100 mol% of hexamethylenediamine,

the percentage molar amount of phthalic acids
being 100 % and the percentage molar amount of diamine
being 100 %.

7. (previously presented) Reinforced thermoplastic polyamide molding materials having simultaneously good surface quality, good flowability and good heat dimensional stability from polyamide compositions on basis of semi-crystalline semi-aromatic (co)polyamide having a melting point of at least 240°C (A) and amorphous (co)polyamides (B), characterized in that said polyamide compositions comprise:

(A) 85-92 wt.% of a semi-crystalline semi-aromatic (co)polyamide, formed by

(A₁) 50-80 mol% of units of terephthalic acid based on the whole amount of total acids,

(A₂) 20-50 mol% of units of isophthalic acid based on the whole amount of total acids,

the sum total of units of dicarboxylic acids being 100 mol%,

(A₃) 100 mol% of units of at least one linear or branched aliphatic diamine having 4-25 carbon atoms, the percentage molar amount of phthalic acids in said semi-crystalline semi-aromatic (co)polyamide being 100 mol% and the percentage molar amount of diamines being 100 mol%, and

(B) 8-15 wt.% of said amorphous (co)polyamides having a melting enthalpy of not more than 1 cal/g, formed by

(B₁) 55-100 mol% of units of isophthalic acid based on the whole amount of total acids,

(B₂) 0-45 mol% of units of terephthalic acid based on the whole amount of total acids,

(B₃) 100 mol% of units of at least one linear or branched aliphatic diamine having 4-25 carbon atoms based on the whole amount of present diamines
the percentage molar amount of phthalic acids in said semi-crystalline semi-aromatic (co)polyamide

being 100 mol% and the percentage molar amount of diamines being 100 mol%,

and said polyamide molding material further comprises:

(C) 25-70 wt.% of a fibrous or particle filler or mixtures thereof

(D) 0-20 wt.% of a elastomer,

(E) up to 30 wt.% of usual additives and processing aid agents based on the total amount of said components (A) to (B), if required further comprising prepolymeric polyamides having the relative viscosity of 1.01-1.30 (as measured in 0.5% m-cresol solution) in amounts of 0.1-20 wt.%, said prepolymeric polyamides being the same or different than said polyamide molding materials.

8. (previously presented) Polyamide molding materials according to claim 7 characterized in that said additives and processing aid agents are selected from the group consisting of chain capping agents, stabilizers, crystallization agents, plasticizers, dyes, pigments, antioxidants, flame retardants, antistatics, lubricants, mold release agents, conductive additives, and metal powders.

9. (previously presented) Polyamide molding materials according to claim 7 characterized in that they comprise up to 6 wt.% of carbon black as said additives and processing agents.
10. (previously presented) Method for production of polyamide molding materials according to claim 7 wherein said polyamide molding materials are mixed in the melt or dry state and if required, prepolymeric polyamides having defined viscosities and in amounts of 0.1 to 20 wt.% of the polyamide matrix are mixed to said polyamide molding materials in said melt or dry state and at processing temperatures of 250-380°C they are processed and discharged.
11. (previously presente) A method according to claim 10 characterized in that said polyamide molding materials are subjected to a post-condensation step.
12. (previously presented) A method of using said polyamide molding materials according to claim 7 for production of molded parts or finished articles.

13. (previously presented) A method of using said polyamide molding materials according to claim 1 for production of supporting structures in motor vehicles.
14. (previously presented) A method of using said polyamide molding materials according to claim 1 for production of tubes, hollow bodies and other semi-finished products.
15. (previously presented) The polyamide molding materials according to claim 1 wherein said aliphatic diamine having 4-25 carbon atoms is including hexamethylenediamine.
16. (previously presented) The polyamide molding materials according to claim 1 wherein said filler is glass fibers.
17. (previously presented) A method of using said polyamide molding materials according to claim 7 for production of supporting structures in motor vehicles.
18. (previously presented) A method of using said polyamide molding materials according to claim 7 for production of tubes, hollow bodies and other semi-finished products.

19. (previously presented) The polyamide molding materials according to claim 7 wherein said aliphatic diamine having 4-25 carbon atoms is including hexamethylenediamine.

20. (previously presented) The polyamide molding materials according to claim 7 wherein said filler is glass fibers.